Hirshstein (U.S. Patent No. 2,284,737) reference

As stated and reasoned in the Amendment (page 7), the separator disclosed in the Hirshstein reference is intended to run 'liquid full', and there is no capability for (or intention of) lowering of the operating water level to provide capacity to accumulate and substantially increase the holding time for inflowing waste water. In contrast, the device in the pending Application differs by features recited in the following claims (emphasis added by *italics*):

- Amended independent claims 33, 40, 42, 52, each have a limitation recited as: "...such that, during operation, *the level of said oil and water mixture will rise from a chamber low liquid level up to a higher liquid level and then return to said chamber low liquid level*, thereby defining an oil and water mixture active lag capacity in said oil disengagement chamber, such that, for a predefined range of inflows into said oil disengagement chamber, outflow from said effluent water chamber will contain a proportion of oil in water substantially below a predefined limit."
- Amended independent claim 53 recites a limitation "wherein outflow from said chamber is limited by flow retarding means to a predetermined function of the level of said oil and water mixture in said chamber"
- Amended independent claim 60 specifically recites "A method of conversion of an oil from water separator which normally operates liquid full into an oil from water separator which has an oil disengagement chamber ... , *the oil disengagement chamber having a low liquid level* ..."

The Applicant respectfully submits that the language of the independent claims as pointed out above, taken in conjunction with the Remarks of the Amendment, distinguishes the device as recited in the pending claims over the Hirshstein device.

Pravicha (U.S. Patent No. 745,519) reference

As stated and reasoned in the Amendment (page 9), the separator disclosed in the Pravicha reference is also intended to run 'liquid full', and there is no capability for (or intention of) lowering of the operating water level to provide capacity to accumulate and substantially increase the holding time for inflowing waste water. In contrast, the device in the pending Application differs by features recited in the independent claims 33, 40, 42, 52, 53, and 60. The

distinguishing language in these independent claims are outlined above in the section titled Hirshstein (U.S. Patent No. 2,284,737) reference. Thus, the Applicant respectfully submits that the language of the independent claims as pointed out above, taken in conjunction with the Remarks of the Amendment, distinguishes the device as recited in the pending claims over the Pravicha device.

SUMMARY

For the foregoing reasons, the Applicant submits that all of the claims of the pending application are allowable over the art of record. Should there be any impediment to the prompt allowance of this application that could be resolved by a telephone conference, the Examiner is respectfully requested to call the undersigned at the number shown.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,
KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: 11/1/02

By: _____
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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Claims 33, 40, 42, 52, and 53 have been amended as follows:

33. (Twice amended) An oil from water separator **[including]** comprising:

an oil disengagement chamber adapted to receive an oil and water mixture and retain it for a sufficient time in a relatively undisturbed state whereby oil in the mixture floats to the top of the mixture resulting in a substantially oil free volume of water having a layer of oil derived from said oil and water mixture floating on the surface thereof, said oil disengagement chamber partially separated from an effluent water chamber by an under flow baffle which ducts said substantially oil free volume of water to said effluent water chamber, the oil disengagement chamber having a low liquid level which is higher than the under flow baffle, the outflow of said substantially oil free volume of water from said effluent water chamber being limited by flow retarding means to a rate of outflow which is a function of the head of the liquid in said effluent water chamber;

[such that,] wherein during operation, the level of said oil and water mixture will rise from a chamber low liquid level up to a higher liquid level and then return to said chamber low liquid level, thereby defining an oil and water mixture active lag capacity in said oil disengagement chamber, such that, for a predefined range of inflows into said oil disengagement chamber, outflow from said effluent water chamber will contain a proportion of oil in water substantially below a predefined limit.

40. (Twice amended) An oil from water separation system **[including]** comprising:

an oil disengagement chamber having an accumulation volume defined between a chamber high liquid level and a chamber low liquid level; said accumulation volume caused to exit from said chamber on attainment of said chamber high liquid level;

[such that,] wherein during operation, the level of said oil and water mixture will rise from said chamber low liquid level up to said chamber high liquid level and then return to said chamber low liquid level, thereby defining an oil and water mixture active

lag capacity in said oil disengagement chamber between said chamber high liquid level and said chamber low liquid level, such that, for a predefined range of inflows into said oil disengagement chamber, outflow from said system will contain a proportion of oil in water substantially below a predefined limit.

42. (Twice amended) An oil from water separator **[including]** comprising:

an oil disengagement chamber adapted to receive an oil and water mixture and retain it for a sufficient time in a relatively undisturbed state whereby oil in the mixture floats to the top of the mixture resulting in a substantially oil free volume of water having a layer of oil derived from said oil and water mixture floating on the surface thereof, and means for retarding outflow from said chamber until said mixture reaches a predetermined chamber high liquid level whereupon said substantially oil free volume of water is caused to exit said chamber;

[such that,] wherein during operation, the level of said oil and water mixture will rise from said chamber low liquid level up to a higher liquid level and then return to said chamber low liquid level thereby defining an oil and water mixture active lag capacity in said oil disengagement chamber, such that, for a predefined range of inflows into said oil disengagement chamber, outflow from said separator will contain a proportion of oil in water substantially below a predefined limit.

52. (Twice amended) An oil from water separator **[including]** comprising:

an oil disengagement chamber adapted to receive an oil and water mixture and retain it for an extended time in a relatively undisturbed state whereby oil in the mixture floats to the top of the mixture resulting in a substantially oil free volume of water having a layer of oil derived from said oil and water mixture floating on the surface thereof, outflow from said chamber being controlled in a predetermined way by flow retarding means;

[such that,] wherein during operation, the level of said oil and water mixture will rise from said chamber low liquid level up to a higher liquid level and then return to said chamber low liquid level thereby defining an oil and water mixture active lag capacity in said oil disengagement chamber, such that, for a predefined range of inflows into said oil

disengagement chamber, outflow from said separator will contain a proportion of oil in water substantially below a predefined limit.

53. (Twice amended) An oil from water separator **[including]** comprising:

an oil disengagement chamber adapted to receive an oil and water mixture and retain it for a sufficient time in a relatively undisturbed state whereby oil in the mixture floats to the top of the mixture resulting in a substantially oil free volume of water having a layer of oil derived from said oil and water mixture floating on the surface thereof**[,]**;

wherein outflow from said chamber is limited by flow retarding means to a predetermined function of the level of said oil and water mixture in said chamber; said oil disengagement chamber is partially separated from an effluent water chamber by an under flow baffle which ducts said substantially oil free volume of water to said effluent water chamber.

60. (Twice amended) A method of **[conversion of a conversion of]** converting an oil from water separator which normally operates liquid full into an oil from water separator which has an oil disengagement chamber, said method comprising:

[adapted] adapting said oil disengagement chamber to receive an oil and water mixture and retain it for a sufficient time in a relatively undisturbed state whereby oil in the mixture floats to the top of the mixture resulting in a substantially oil free volume of water having a layer of oil derived from said oil and water mixture floating on the surface thereof, the oil disengagement chamber being partially separated from an effluent water chamber by an under flow baffle which ducts the substantially oil free volume of water to the effluent water chamber, the oil disengagement chamber having a low liquid level which is higher than the under flow baffle**[,]**; and

[said method comprising the step of] installing a flow retarding device in or in association with a weir wall of the decant separator so that a rate of outflow of the substantially oil free volume of water is controlled as a function of the head of the liquid in the effluent water chamber.